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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/521,969

03/07/2005

Gerhard Piriwe

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23552 7590 02/18/2009
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EXAMINER

MCNALLY, DANIEL

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

02/18/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/521,969	Applicant(s) PIRIWE, GERHARD	
	Examiner DANIEL MCNALLY	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Piriwe [EP1022226A1, of record, previously cited] in view of Harrison [US6075223, newly cited].

Piriwe discloses a method of producing a cork brand on a plug made of foamed thermoplastic. It is noted the examiner relies upon and cites US6528152 as an English equivalent of the EPO document. The method comprises producing a foamed thermoplastic plug comprising a pigment that changes its color under the influence of heat, and producing the cork brand by applying heat to the pigment from a laser.

Piriwe discloses heating using a laser but is silent as to the focal point of the laser beam lying in a plane different from the surface of the plug.

Harrison discloses a method of laser marking. Harrison discloses the method can be used to mark a variety of materials including plastics, without damaging the surface of the material. Harrison discloses the focal plane of the laser is located above the plane of the surface of the material, as shown in Figure 10. Harrison discloses the temperature of the surface being heated is controlled by the power of the laser, the focal plane of the laser and the moving speed of the laser (column 4, lines 45-52). Harrison

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discloses the method allows for rapid marking that does not damage the surface of the material (column 2, lines 54-67).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the method of Piriwe by using a laser with a focus point that lies in a plane different from the surface of the plug as taught by Harrison in order to produce a rapid and reliable marking without damaging the surface of the plug

With regard to claim 2, the focal point of the laser seen in the direction of the laser beam is before the surface of the plug as shown in Figure 10,

With regard to claims 3 and 4, it is intrinsic that the laser beam wobble frequency on a foamed plastic is smaller than the wobble frequency on an unfoamed plastic, and energy irradiated on the foamed plastic essentially corresponds to the energy supplied to the same unfoamed plastic.

With regard to claim 5, it is interpreted that the applicant's use of the word "unfocused" means the laser is "defocused" as discussed in page 4, lines 13-15 of the applicant's specification. Harrison's laser is also defocused, that is the surface to be lasered is found behind the point that the laser beam is regarded as focused.

Response to Arguments

3. Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection. Applicant argues, previously cited, Walter discloses a laser irradiating method that results in removing portions of the irradiated surface. Newly cited Harrison discloses a laser marking method that does not

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cause damage to the irradiated surface. Harrison also teaches the laser should be focused in a plane that is not the same as the surface of the plug.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL MCNALLY whose telephone number is (571)272-2685. The examiner can normally be reached on Monday - Friday 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Daniel McNally/
Examiner, Art Unit 1791

/John L. Goff/
Primary Examiner, Art Unit 1791

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/DPM/

February 9, 2009